Analysis of the Regulation of Key Risk Factors to Road Traffic Accident in Ethiopia and Challenges for Enforcement

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Abstract

Road Traffic Death is a common tragedy in many parts of the world, yet one that rarely receives the attention it merits. More than one million three hundred thousand fifty people globally, and three thousand five hundred people in Ethiopia are being killed in road accidents every year. Regrettably, working-age groups make up a large proportion of those killed and injured. Accordingly, this article examined how far comprehensive is the Ethiopian law in addressing key risk factors for traffic accident. Particularly, it examined the comprehensive regulation of key risk factors to road traffic deaths and injuries namely:–speeding, drink–driving, use of seatbelts, child restraints, and motorcycle helmets, in light of the globally accepted practices. The result showed, despite the effort made to incorporate several rules, there are still substantial loopholes in meting out the appropriate penalties. Further, the non-application of point demerit penalty system stipulated under the law, limited resource, understaffing and lack of patrolling vehicles/motorcycles, Traffic Controllers' lack of commitment for enforcing traffic laws, lack of publicity and poor road engineering works are, among others, identified as the major obstacles to effective enforcement of traffic regulation.

Key terms: Risk Factors · Road Traffic Deaths and Injuries· Speeding · Drink–Driving · Seatbelts · Child Restraints· Motorcycle Helmets, Ethiopia

Introduction

Road Traffic Accident (RTA) is one of the major phenomena of modern time threatening the social and economic well-being of societies across the globe. Due to road traffic accidents (hereinafter, RTA), over 3,000 people every day[1]

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Frequently used acronyms:

RTA = Road Traffic Accident
FDRE = Federal Democratic Republic of Ethiopia
WHO = World Health Organization

[1] World Health Organization (hereinafter, WHO), World Report on Road Traffic Injury Prevention: Summary, (2004), p.1, available on www.who.int, accessed on October 2020.

and 1.35 million people every year are being killed in the world.[2] It is also reported that more than 50 million people are injured or disabled each year.[3] Undesirably, RTA remains the leading cause for the death of children and young adults aged 5-29 years. Economically, it costs 3% of most countries' gross domestic product. Even though low and middle-income countries own 60% of the world's vehicles approximately, 93% of the deaths on the road occur in low and middle-income countries.[4]

In Ethiopia, the Federal Police Commission report envisages that, since 2012/13, more than 3,000 people have died and 6,000 people are injured each year due to RTA. Further, according to the 2018 WHO report, the number of road traffic deaths in the country has reached 4,352 people annually and its rate remains high at around 27 deaths per 100,000 populations.[5] The WHO reports – comparing the phenomena across countries shows that in countries with proactive RTA policies such rate is below 10%.

Examining the magnitude, features, and cause of the Ethiopian RTA deaths, studies identify several contributing factors to the problem. Particularly, a closer look into the records of the past five years shows that over 87% of all RTA in Ethiopia are attributed to driver fault, namely, speeding and denial of priority to pedestrians.[6] Studies also showed that RTA is [usually] attributable to a chain of multiple factors associated with the *road* and *environment deficiencies*, *vehicle defects,* and *road user errors/human factors*.[7] Environmental factors are related to the way roads are laid out and designed, the presence of road signs and markings, the design of junctions and pavement surfaces, etc.

The factors associated with defects of vehicles such as malfunction of the braking system, body, tire, and improper inspection are reported to be the major

[2] WHO, Global Status Report on Road Safety 2018, p.5, available on http://apps.who.int/iris, accessed October 11, 2020.
[3] WHO, Make Roads Safe: The Campaign for Global Road Safety United Nations Decade of Action for Road Safety 2011-2020, (2011), available at www.who.int/roadsafety/decade/of/action/plan/global/plan/decade.pdf accessed February 10, 2019.
[4] WHO, *supra* note *2.*
[5] *Id*, p. 322 & 323.
[6] A. Persson, Road Traffic Accidents in Ethiopia; Magnitude, Causes and Possible Interventions, Journal of Advances in Transportation Studies, Section A, No.15, (2008), p. 12.
[7] WHO, *supra* note *1*, p.5; B. Hutchinson, Principles of Urban Transport Systems Planning, (1974), Script Book Company, Washington D.C. p. 68; Atubi Augustus, Determinants of road traffic accident occurrences in Lagos State: Some lessons for Nigeria, International Journal of Humanities and Social Science, V.2 No. 6, special issue (2012), p. 259. Perhaps relevant literatures generally regard them as the major contributing factors of RTA.

causes of RTA deaths.[8] It has also been shown that these defects would become higher when the vehicle is getting older. Under the human factors category, agents such as drivers, animals, passengers, pedestrians, and bicyclists are reported to have contributed to RTAs, particularly to those occurring as a collision. For instance, drivers' behaviour such as speeding, driving under the influence of alcohol, non-use of seatbelts, under-age driving activity is among the recognized risk factors leading to RTA.

In most cases, these risk factors are interconnected and any measure taken against one will deter the other. Conversely, the presence of one of these inherently drives the occurrence of the other.[9] For example, driving under the influence of alcohol increases the likelihood of not complying with other traffic rules such as speeding, not using a seat-belt, or motorcycle helmet.[10] Thus, control actions should always take note of this interconnection among the risk factors causing RTAs.[11]

Informed by the insights on the nature of and interconnection among these risk factors, various road safety regulations were developed and documented as legal agreements at different institutional levels. To this end, the UN has so far codified 58 transport agreements and conventions, 13 of which have particular relevance to addressing various road safety issues.[12] One such relevant document is Resolution 64/255 proclaimed to stabilize and reduce RTA among UN member states.[13]

Ethiopia, as a member of this convention, is expected to commit itself to improve road safety which principally plays a crucial role in facilitating socio-economic developments to its citizens. Also, in the past two decades, there has been massive road network construction for domestic and border transport

[8] See for example, Tom V. Mathew, Transportation Systems Engineering, (2014), p. 42 section 2, available at https://nptel.ac.in/courses/105101008/downloads/cete49.pdf , accessed February 24, 2020.
[9] WHO, Save LIVES: A Road Safety Technical Package, (2017), p. 14, available at, http://apps.who.int/iris, accessed on March 2, 2020.
[10] Francesco Mitis and Dinesh Sethi, Reducing Injuries and Death From Alcohol-Related Road Crashes, (2013), available at www.euro.who.int/data/European-facts-Global-Status-Report-road-safety-en.pdf, accessed February 29, 2020.
[11] C. Tingvall, The Zero Vision, In: Van Holst H, Nygren A, Thord R, *eds*., Transportation, Traffic Safety and Health: The New Mobility, Proceedings of the 1st International Conference, Gothenburg, Sweden, Berlin, Springer-Verlag, (1995) p. 35–57.
[12] These legislations and soft laws are generally managed by the Inland Transport Committee of the United Nations Economic Commission for Europe (UN ECE).
[13] Resolution 64/255 proclaimed as '*Decade of Action for Road Safety* by the UN general assembly from 2011-2020.

services in this country.[14] Yet, such an increase in transport services has also placed a significant burden on the life of the population. Despite the increase in road access following government investment in road network expansion and the rise of the vehicle fleet, the country has no comprehensive national policy on the issue of road safety so far.[15] Further, the issue of road traffic safety is not explicitly stated in the proclamation that establishes various road safety agencies in Ethiopia.[16]

Considering the lack of consolidated laws and policy on road safety, on the one hand, and the development dynamics, on the other hand, one would argue that RTA is just a *disease of development or outcome of developmental activity inherent in developing economies like Ethiopia,*[17] Lagging behind the socio-economic dynamics of the country, the RTA laws and policy failed to address the phenomena which have been increasing over the years and becoming a day-to-day incidence in this country. Particularly, this Author argues, the legal stipulations surrounding RTA are not sufficiently articulated with considerable attention — given the fact that RTAs pose serious human threats comparable to similar threats like HIV/AIDS. Therefore, it merits critical examination as a step into finding a cure for it.

In Ethiopia, there are various road traffic laws applicable throughout the country, including the recent amendment proclamation on 'Driver's Qualification Certification License', i.e. Proc.No.1074/2018. However, the existence of poor transport legislation and failure of implementation is indicated as the main obstacle to reducing road traffic deaths and injuries.[18] Most traffic legislations in Ethiopia are old to properly address the contemporaneous situations.[19] Consequently, there are various amendments, deletions, and

[14] United Nation Economic Commission of Africa (hereinafter, UN ECA), Road Safety In Ethiopia; Case Study, UNECA/NRID/019, September 24, 2009, p. 8, available on http://www.repository.uneca.org/handle/10855/738, accessed February 10, 2019; FDRE Gov't Communication Affair's Office, Road Safety in Ethiopia, (May 2017), Booklet published by Content Development and Distribution General Directorate, p. 5.

[15] There is a strong assumption that, when there is high volume of vehicles, with inadequate infrastructure and irrational distribution of the development, there will be increasing traffic jam and associated road accidents. Peden M, *et al*. (eds.), World Report on Road Traffic Injury Prevention, published by WHO, Geneva, (2004), p. 72 &ff. Available at www.who.int, accessed February 10, 2019.

[16] Transport Proclamation, Proclamation No. 468/2005, *Federal Negarit Gazeta No.58* 6th August, 2005.

[17] Pratte D, Road Traffic Accidents in The Developing World, Student Journal, V.12 No.6 (1998), p. 13, available at https://journals.mcmaster.ca/nexus/article/viewFile/161/128, accessed March 1, 2019.

[18] FDRE Gov't Communication Affair's Office, *Supra* note *14,* p. 8.

[19] UN ECA, *Supra* note *14*, p. 27.

replacements.[20] Yet, transport legislation passed in such a way is still criticized as non-comprehensive and unclear in regulating different road safety issues.[21] Thus, this article aims to qualitatively assess the traffic legislation with a specific focus on key risk factors to road traffic deaths and injuries. Accordingly, it has closely examined, interpreted, and analysed traffic legislations in Ethiopia in light of the best global practices and experiences. Its scope is limited to the Speed Limit Regulation No.361/1969 and Road Transport Traffic Control Regulation No.208/2001 and Road Transport Traffic Control Amendment Regulation No.395/2017. Furthermore, to have a comprehensive exploration of the issue, major practical challenges thwarting the enforcement of traffic laws were assessed. In doing so, selective interviews are made with Key Traffic Controllers in two major cities with a high traffic fatality rate in the Amahara National Regional State (hereinafter, ANRS).

The article is structured under four sections. The first section explains the traffic legislation and institutional structure in Ethiopia. The second section analyses the overall regulation of key risk factors to road traffic deaths and injuries under the Ethiopian laws. Then, the third section uncovers the legal and practical challenges hindering efficient and effective enforcement of traffic laws. Finally, it concludes with a statement of the major finding of the investigation.

1. General Overview on Road Safety Legislations and Institutional Arrangement in Ethiopia

In Ethiopia, laws have been enacted at different times to govern the road transport sector. These laws govern various aspects of the road transport sector including road safety issues and also provide the powers and duties of the government organ responsible to enforce these laws. The next sub-sections brief highlights the road safety legislation and institutional arrangement stipulated in the pertinent legislation.

1.1. The Legal Framework

Even if Ethiopia has no comprehensive and defined road safety policy, various legislations are dealing with transport activity since the 1960s. As the subsequent economic and social development of the country over the last half a century required the transport service to be regulated in a more comprehensive,

[20] For instance, the standing Traffic Control Regulation (Road Code) is enacted in 1963, and it was later amended several times, until it has been totally replaced by Road Transport Traffic Control Regulation No 208/11, part of which is also amendment by Regulation No.395/2017.

[21] FDRE Gov't Communication Affair's Office, *Supra* note *14*.

safe, and efficient manner, several laws enacted over this period were amended and replaced by new legislations and different entities has assumed responsibility. Currently, those legislations relevant to road transport activities in Ethiopia are Transport Proclamation No. 468/2005, which replaces Proclamation No. 14/1992; Vehicles Identification, Inspection and Registration Proclamation No.681/2010; Vehicle Insurance Against Third Party Risk Proclamation No.799/2013; Driver's Qualification Certification License Proclamation No.1054/2018; National Road Traffic Safety Council Establishment Regulation No. 205/2011; Ethiopian Roads Authority Re-Establishment Regulation No.247/2011; The Road Transport Traffic Control Regulation No.208/2011 and its amendment Regulation No.395/2017; Ethiopia's Speed Limits Regulation No. 361/1969; Road Transport Tariffs Regulations No. 2/1992 and its amendment Regulation No. 51/1999, and The FDRE Criminal Code (2005). These sets of laws regulated various aspects of the transport system and most of them are promulgated after 2005.

Looking into the contents of some of these enactments, one can see that the 1960s Regulation provided provisions regulating the traffic operation and safety precautions namely, vehicle emissions, noise, drunk driving, and pedestrian's priority on pedestrian crossings, pedestrian road use, and carrying a passenger on trucks. However, the regulation was non-responsive to emerging road safety issues including seat belts, child restraints, motorcycle helmets, and mobile telephone. Thus, as a replacement to this legislation, Road Transport Traffic Control Regulation No.208/2011 was enacted in 2011, part of which was again amended by Regulation No.395/2017. However, the Ethiopian Speed Limit Regulation No.361/1969, which was enacted in 1969, is still in force.

Finally, it is important to mention that apart from these regulations enacted centrally, some Regional States and Autonomous City Administrations have also enacted regulations. For instance, the Addis Ababa City Administration has established the Road Traffic Safety Council in 2003 and set penalties in 1998. This was later amended in 2004.[22]

1.2. Institutional Arrangement

Legislations and regulations related to road safety are linked to the powers and duties of the different government bodies both at the federal and regional levels. The main government bodies at the federal and regional levels concerned with road safety include the Ministry of Transport (MOT), National Road Traffic

[22] UN ECA, *supra* note *14*, p. 30.

Safety Council (NRTSC), Federal Transport Authority (FTA), Regional Transport Bureaus, Ethiopian Roads Authority (ERA), Regional Rural Road Authorities, Road Fund Agency, Federal Police Commissions (FPC), Regional Police Commissions, and City Administrations.

As part of the executive branch of the government, the Ministry of Transport is responsible to supervise and coordinate transport sectors including FTA, ERA, and Road Fund Agency. Under Transport Proclamation 468/2005, it is also responsible to initiate policies and laws, prepare budgets, and ensure enforcement of federal laws.[23] The other institution with relevant power and duty to road safety is National Road Traffic Safety Council. Established by the Council of Ministers through Regulation No. 205/2011, this institution currently serves as a leading agency on road safety issues. Accordingly, it is vested with the power to formulate national road traffic safety plans and programs, review and evaluate the effectiveness of existing laws, standards, and directives, propose safety improvements, promote road safety issues, and organize forums on the prevention of RTAs.[24]

Turning to another development in the institutional arrangement, one could see that the Ethiopian Roads Authority is re-established by Regulation No. 247/2011 to develop and administer highways, and ensure the standard of road construction. As its major roles, it is also responsible for planning and formulating long and short-term plans and programs for road construction, design, maintenance. Particularly, it undertakes the duty of expanding and maintaining the federal road network to an acceptable standard and condition.[25]

Federal Transport Authority, the third institution with relevant power and duties to road safety, is accountable to the Ministry of Transport and responsible for regulating transport services i.e. road, rail, and water transport. According to Proclamation No.468/2005, its responsibilities are largely about vehicle safety and driver training and licensing. Based on the direction given by Federal Transport Authority, Regional Transport Bureaus, undertake vehicle inspection, registration and licensing, driver training and licensing, management of safe transport services to the public in their respective regions.

[23] A Proclamation to Provide for the Regulation of Transport, Proclamation No.468/2005, *Federal Negarit Gazeta*, 11th Year, No.58, 6th August, 2005 Art. 14.

[24] Council of Ministers Regulation to Provide for the Establishment of National Road Traffic Safety Council, Regulation No. 205/2011, *Federal Negarit Gazeta*,17th Year, No.30, March 30th, 2011, Art. 3.

[25] A Regulation to provide for the Re-establishment of the Ethiopian Roads Authority, Regulation No. 247/2011, *Federal Negarit Gazeta*, 17th Year, No.81, 8th July, 2011 Art. 4.

The fourth institution in charge of road safety is the office of Traffic Police. Traffic Police are organized at the federal and regional levels for the enforcement of traffic rules. This institution plays a twofold role in Ethiopia. Principally, they have the responsibility to enforce traffic laws in collaboration with Transport Controllers.[26] Secondly, they undertake accident investigation and reporting activities mainly for identifying priorities and plans of enforcement strategies and evidentiary purposes in a court of law.[27] Traffic law enforcement, accident investigation, and reporting are made at local police stations. Yet the monthly and yearly aggregated traffic accident data is reported to the next higher police station following the hierarchy to the Regional Police Commission Office. Each Regional Police Commission sends the regional aggregate traffic accident data to the Federal Police Commission Office which forms aggregate national statistics on a traffic accident. Finally, the Ministry of Health, at the federal level, and Health Bureaus, at the regional level, are also responsible to provide emergency medical services for victims of traffic accidents. In sum, the analysis of institutional arrangements shows that quite a several institutions are entrusted with the power and duties to ensure and power safety in the country.[28] Yet, this needs a working and comprehensive framework to consolidate the actions of these institutions to the desired end.

2. The Comprehensiveness of the Regulation on Key Risk Factors for Road Traffic Accident

Enacting traffic laws and regulations which specify acceptable road user behaviour is the first important step to develop a safer road environment.[29] These laws need to be comprehensive enough to capture all aspects of road safety and to coordinate institutions as effective actors in accomplishing this mission.[30] This section evaluates the comprehensiveness of key risk factors, i.e. speeding, drink–driving, and other forms of destructive driving, seat belts, child restraints, and motorcycle helmets under the Ethiopian road traffic legislation. It specifically focuses on the above factors based on the widely accepted practices. Unless a given traffic law comprehensively regulates all these factors, it is

[26] Council of Minister's Regulation to Provide Road Transport Traffic Control Amendment Regulation, Regulation No. 395/2017, *Federal Negarit Gazeta*, 26th, December, 2017 Art. 2(12).
[27] Although such responsibility is not explicitly stated under the regulation, it has become a long tradition for Traffic Police to take daily reports on RTA as one of the other governmental responsibility.
[28] WHO, *supra* note *2,* p.5.
[29] Dominic Zaal, Traffic Law Enforcement: A Review of the Literature, Monash University Accident Research Centre Report Documentation No.53, (1994), p. 6, available on, https://www.monash.edu/muarc/our-publications/muarc053, accessed March 3, 2019.
[30] *Id.*

hardly possible to reduce road traffic deaths and injuries.[31] Consequently, the legal assessment on the above risk factors is made according to the globally accepted road safety standards, as established by the World Health Organization (WHO) and countries with tested practices.[32]

2.1 Speed

Reducing traffic deaths and injuries caused by speed requires a range of measures aimed at balancing the safety and efficiency of vehicles. One such measure is to have a strong law that aims to reduce the incidence of driving fast for a given road type or prevailing conditions by maximizing compliance with the limits.[33] So, providing a clear legal framework on speed is a requirement for achieving compliance with speed limits. However, such law should be comprehensive enough to address important concerns of speed which commonly include: *setting the maximum speed limits*, *specifying enforcement techniques and tools used by enforcement bodies,* and *defining the appropriate penalties*.[34] Thus, to systematically manage and test the comprehensiveness of Speed Limit Regulation, the legal analysis needs to be made in terms of these important concerns. Finally, the compatibility of the 1969 regulation with the current road traffic situation in Ethiopia needs to be tested in general.

2.1.1 Maximum Speed Limits

As indicated at the beginning of this chapter, the Ethiopian Speed Limit Regulation was enacted in 1969 during the imperial time, and it has been still in force without any subsequent amendment. It defines the term '*Speed Limit*' as the maximum speed that one can drive a motor vehicle in a given situation.[35] Consequently, Art 5 has broadly laid down general principles, and hence any person cannot drive a motor vehicle with a maximum speed, without taking into consideration every reasonable circumstance that can give rise to RTA including the condition of road level or size, condition of the environment such as rain,

[31] WHO, Global Status Report on Road Safety 2009: Time for Action, p. 15; WHO, Global Status Report on Road Safety 2013: Supporting a Decade of Action, p. 12; WHO, Global Status Report on Road Safety 2015, p. 5. All are available on www.who.int, accessed on June 20, 2020.

[32] In general, it's found under Global Status Report's (2009-2015), WHO's Save Lives technical package, WHO's practical guide books for decision makers, legislators and practitioners, safe system approach and other scientific researches that provide evidence-based reduction measures against road traffic deaths and injuries.

[33] Global Road Safety Partnership (GRSP), Speed Management: A Road Safety Manual for Decision-Makers and Practitioners, Global Road Safety Partnership Publications, Geneva, (2008), p. 11, available at www.GRSProadsafety.org, accessed December 11, 2020.

[34] *Id*, p. 28.

[35] Council of Minister's Regulation to Provide Ethiopia's Speed Limit Regulation, Regulation No. 361/1969, *Federal Negarit Gazeta*, 1969, Art. 4(1)

snow, and fog, the number of residents in the area, condition of traffic flow, intersections and crossings, closed ways, and any other similar situations which encounter a motorist to drive safely without causing an accident.[36] Yet, in other situations, a motorist is prohibited to drive beyond the maximum speed limits stipulated under art 6, 7, and 8 of the same regulation. Therefore, speeding involves the behaviour of a driver who drives above the maximum legal limit and it envisages inappropriate speeding behaviour under road conditions specified earlier although it is within the legal limit.

Article 6 and 7 of the regulation set the 'default' maximum speed limit for rural and urban roads respectively. As per Art 6(1), outside urban areas/in rural areas, the maximum speed limit for private cars and motorcycles is 100 km/h on primary roads, 70 km/h on secondary roads, and 60 km/h on feeder roads. Whereas, as per Art. 6(2), for commercial vehicles, the maximum speed limits are 80, 60, and 50 km/h, on primary, secondary, and feeder roads respectively. Lastly, regarding motor vehicles and trucks with semi-trailers and trailers, the maximum limits are 70, 50, and 40 km/h on primary, secondary, and feeder roads respectively.

Yet, for public safety purposes, these speed limits can be reduced on any road/bridge either fully or partially against any kind of motor-vehicles by the Ethiopian Road Authority, as per Art. 8 (a) of the regulation. Further, in urban areas, Art.7 sets the maximum speed limit as 60 km/h for private cars and motorcycles, 40 km/h for single-unit trucks with a maximum gross weight of 3,500 kg and public transport vehicles, and 30 km/h for single-unit trucks exceeding 3,500 kg and trucks with trailers. Yet, like Art. 8(b) of the regulation, local municipalities can lower these speed limits when it is necessary and a competent body shall post the speed limit on visible public areas. In general, the stipulated maximum speed limits under the regulation are set by taking into account the type of road, type of vehicle/its carriage capacity, and volume and type of road users. Therefore, this is compatible with the recommended global best practice.[37] Nevertheless, some rules incompatible with these established practices are identified. First, as it is set out under Art. 7 of the regulation, in urban areas maximum speed limit is 60 km/h for private automobiles, unless it is not reduced in special cases by local authorities based on Art.8(2). However, today, the widely accepted global practice is to set the maximum speed limit to 50 km/h or less in urban areas for the general population and 30 km/h for

[36] *Id*, Art. 5(1) (a)-(g).
[37] Speed Limit Regulation No. 361/69, *supra* note *35,* Art. 26.

residential areas and sites where there are high volumes of pedestrian and/or cyclist traffic mixed with vehicles/motorcycles.[38]

While stressing the reason for such a limit, a study clearly shows what can the reaction of a driver can be in situations where a child runs into the road at a point about 35 meters in front of a car while a driver is driving his vehicle at various speeds.[39] If for example, a person drives at speed of 50 km/h on a given urban road, it can stop in time without the child being hit at a distance much before 35 meters. However, if the speed of the car is 60 km/h — since the distance covered in the driver's reaction time i.e. 36 meters is more than the distance to the child—the child will be touched by the car, but with a small chance of survival. Consequently, the possibility of death increases if a person drives at 65 km/h, 70 km/h, and 80 km/h, for the child could be hit before 35 meters from the area where he is situated.[40] This is so because the stopping distance for a vehicle after a driver reacts and brakes will be longer at a greater travel speed.[41]

Here, having a look at the 60 km/h maximum urban speed limit under the Ethiopian Speed Limit Regulation *vis-a-viz* the global best practice, one may observe that it is not fairly high. Nevertheless, several studies consistently found out that a significant increase in speed limit can increase road crash, injury, and fatality rates, whereas its reduction can help to cut these rates. For instance, according to the Power model, about a 5% increase in average speed can lead to an approximate 10% increase in crashes involving injury, and a 20% increase in those involving fatalities.[42] On the other hand, a 5% reduction in average speed is estimated to reduce the number of fatal crashes by as much as 30%.[43] More specifically, a study also demonstrates that an adult pedestrian has a 20% risk of dying if struck by a car travelling at 60 km/h, and the impact speed above the limit of 30 km/h increases the likelihood of injury or fatality.[44] Therefore, to

[38] WHO Global Status Report 2013, *supra* note *32* p. 42; WHO Global Status Report 2015, *supra* note *32* p. 36; WHO Save LIVES, *supra* note *9,* p. 16.

[39] Commonly, during accident deriver's reaction time can be a little as one second. But, a vehicle' reaction time in one trial is usually taken as in a range between 1.5 and 4 seconds. See for instance Evans L. *Traffic Safety and the Driver*, (1991) USA, Van Nostrand Reinhold.

[40] WHO Save LIVES, *supra* note *9,* p. 14; GRSP, *supra* note *33*, p. 7.

[41] GRSP, *supra* note *33*, p. 6.

[42] Nilsson G. Traffic Safety Dimensions and the Power Model to Describe the Effect of Speed on Safety, Lund University, Lund Institute of Technology, Sweden, (2004), p. 21.

[43] WHO, Ten Facts on Global Road Safety, (2013), available on http://www.who.int, accessed 3 May, 2019.

[44] Tefft B. Speed Impact and A Pedestrian's Risk of Severe Injury or Death, Journal of Accident Analysis and Prevention, V. 50, (2013) p. 871; Davis GA. Relating Severity of Pedestrian Injury to Impact Speed in Vehicle Pedestrian Crashes, Transportation Research Record No. 1773, (2001), p. 113; Rosén E,

have a meaningful reduction in road traffic death and injury, the law should have set urban speed limits at 50 km/h or less, as a maximum edge.

Secondly, although local authorities are given the power to reduce the speed limit of 60 km/h in residential areas, under Art. 8(b) of the Speed Limit Regulation, the extent to which authorities can lower such limits is not explicitly given as such. Legislation should govern its subject matter in a definite and clear manner. Otherwise, it will be subjected to broader interpretations that may result in myriad applications. The speed limits stipulated under the regulation were enacted to apply uniformly across all urban roads in Ethiopia and it is presumed that local authorities reduce the speed limit of 60 km/h uniformly at their residential areas. Yet, the minimum limit that authorities can reduce for this purpose is not set.

For instance, under the global experience, local authorities can lower the maximum urban speed limit up to 30 km/h for residential and built-up areas where there is a mix of vulnerable road users such as pedestrians or cyclists with traffic vehicles.[45] Since most vulnerable road users like pedestrians, cyclists, moped riders, and motorcyclists are higher in residential areas than a rural area, the probability of fatal or injury accidents is also higher when motor vehicles collide with them. In this respect, several studies indicate that usually, vulnerable road users survive if hit by a car travelling at 30 km/h, whereas the majority are killed if hit by a car travelling at 50 km/h. And, pedestrians would be exposed to a risk of about 80% of being killed at a collision speed of 50 km/h.[46] Equally, it should be noted that stipulating the limit far below 30 km/h will also have an impact on the proper traffic movement as slow vehicle motion can result in overcrowding/traffic-jam.[47] Given that, legislation should indicate a lower speed limit of 30 km/h in residential areas so that local authorities cannot set far more or less than that. Also, the maximum urban speed limit of 60km/h for private automobiles should be reduced to 50km/h based on these premises to have a meaningful reduction in fatalities.

Most road safety experts agree that the single most important contributor to the road death toll around the world is poor speed selection, commonly interpreted

Stigson H, Sander U, Literature Review of Pedestrian Fatality Risk as A Function of Car Impact Speed, Journal of Accident Analysis and Prevention, V. 43, (2011), p. 33.

[45] WHO Save LIVES, *supra* note *9,* p. 32.

[46] OECD, Speed Management Report, OECD/ECMT Transport Research Centre Paris, (2006), available on www.who.int/roadsafety/projects/manuals/speedmanual/en, accessed February 3, 2020.

[47] In this regard, Road Traffic Regulation No. 208/11 also prohibits and penalizes any motorist to drive with a slower speed at any road contrary to conditions provided by law in its Art. 5(3).

as the use of inappropriate vehicle speeds, or speeding.[48] Reducing to such a limit could be very crucial particularly from the point of view of today's frequent development of engine technologies in which most cars have a top speed that is well over maximum speed limits. For instance, according to a review made from various studies on speed limit changes by several countries such as South Africa, Belgium, Finland, France, UK, Germany, USA, and New Zealand, when a speed limit was reduced or a new limit was introduced and enforced as such, a significant reduction in road crashes ranging from 8% to 40% is found.[49] Moreover, although the setting of speed limits under Regulation 369/63 is set by the type of road and vehicle, it has omitted to specify according to the type of user namely, training drivers, novice drivers, and other users who are most likely to fall in a crash if they drive with the general speed limit allowed for others under global best practice.[50]

2.1.2. Rules on the Enforcement Mechanism/Tools to be used by Traffic Controllers

In 2006 EC, the Federal Transport Authority issued Directive No. 1/2006 on the use of car-mounted speed limit control device and speed measurement devices or police operated hand-held radar gun to enforce legally stipulated speed limits.[51] Accordingly, using a hand-held radar gun, Traffic Controllers are responsible to prosecute speeding motorist that exceed the legal limit. This requires attaching a car-mounted speed detection device on commercial and public transport vehicles to control speeding motorists.[52] However, the Directive failed to provide other automatic speed measurement devices namely, speed cameras which are identified as effective mechanisms to reduce road traffic injuries and fatalities both in rural and urban settings.[53] Similarly, concerning the enforcement of a radar gun, the directive did not specify the speed limit that the driver should be penalized for exceeding above the legal maximum. Yet, it is recommended that the level that police will penalize a driver for exceeding the legal speed limit also known as, '*enforcement tolerance'*, to be specified with a

[48] GRSP Speed Management, *supra* note *33,* p. 6.
[49] European Commission (EC), Managing Speeds of Traffic on European Roads (MASTER), Project of the 4th framework program, Final Report of European Commission, (1998), available at http://virtual.vtt.fi/master/, accessed January February 17, 2018.
[50] WHO, Strengthening Road Safety Legislation: A Practice and Resource Manual for Countries, (2013), p. 23&38, available on http://www.who.int/legislationmanual/en/pdf, accessed March 15, 2019.
[51] Federal Transport Authority Directive on the Use of Vehicle-Mounted Speed Limit Device, Directive No. 1/2006, Addis Ababa.
[52] *Ibid*, Art. 12 (c).
[53] Wilson C. *et al*., Speed Cameras for the Prevention of Road Traffic Injuries and Deaths, Cochrane Database of Systematic Reviews, Issue No. 2, (2011), p. 12.

lower level. For instance, Traffic Police use a speed limit of 3 km/h as allowable tolerance above the legal limit in several countries.[54]

2.1.3 Rules on Penalty Measures against Speeding Motorists

According to the point demerit penalty system provided under schedule B of Traffic Amendment Regulation 395/17, speeding is categorized as a third level traffic offense. If a motorist is caught by Transport Controllers for the first time, he/she is punishable two hundred (200) birr and substantially such amount increases to 300, 350, 400 birr when the demerit points reach to 6, 11, and 16 respectively. However, if the point reaches 21 and 27, the license of the driver's will be suspended for three and six months respectively, or one year if the point reaches above 28. A training/education provided by Transport Authority is also stipulated as an additional measure to suspension of license for a specified period.

However, every increase in the level of speed above the legal limits is generally regulated under the third category traffic offense without any difference. For instance, both a driver that exceeded the legal limit with 5km/h and the one who exceeds more than 20 km/h or more face an equal level of penalty. In contrast, it is essential to set the legal penalties at '*a sufficient level of severity'* to have an effective deterrence according to the global best practice. If appropriate regard is given to the risks associated with small increases in speeds above the legal limits, the penalties should reflect the relative risk to human life that a particular level of speeding poses.[55] Particularly, it is inequitable to suspend the license of a diver travelling at 5km/h above the limit, while others exceeding the limit by 25km/h or more are facing any more severe penalty. Therefore, if the same penalty is set equal to all speed infraction, it could be very lenient especially for those travelling at far more speed beyond the legal limit to effectively deter and change their behaviour. For instance, authorities indicate that vehicles/motorcycles which transport *kchat* from rural areas to cities often travel at a very high speed, and the stipulated 200 birr is found to be non-deterrent, although Traffic Police Controllers have repeatedly involved in punishing them. Moreover, the regulation has failed to specify another type of penalty called *'vehicle impoundment/confiscation'* which is found as the most effective measure against extremist or recidivist speeding drivers.[56]

[54] OECD, *supra* note *49*.
[55] Cameron M *et al*. Scientific Basis for the Strategic Directions of the Safety Camera Program in Victoria, (2003), Monash University Accident Research Centre, Melbourne Report No. 202, p. 72.
[56] GRSP, *supra* note *33*.

2.1.4. Incompatibility of the Speed Limit Regulation with the Current Road Classification in Ethiopia

Legislative actions require careful considerations in advance. Once enacted, legislation should not be amended day and night. Thus, it should consider the future social, political, economic and technological advancements of the society during its enactment. The language of the law should also be accommodative to future needs and developments. More than forty-years (40) have passed since the Speed Limit Regulation is enacted. Yet, Ethiopia has undergone many changes, and global economic, social, and technological innovations have brought significant advancement in the road infrastructure and vehicle fleet. From time to time, the road condition and vehicle fleet are becoming more and more complex.

Despite all this advancement, the Speed Limit Regulation has defined only three types of roads, i.e. *Primary*, *Secondary,* and *Feeder* based on the functional classification of roads.[57] However, nowadays, such classification has developed into five classes, including Trunk Roads, Major Link Roads, Regional Roads, Village Roads, and Special Purpose Roads.[58] Although the definition given to primary roads under the speed limit regulation is quite similar to today's trunk roads[59], there is a difference in other types of roads. Unlike the road classification made under the Speed Limit Regulation during a unitary system of administration, the sector is now organized in line with the federal/decentralization system of government. Accordingly, while Trunk and Major Link Roads fall under the administration of the Federal Ethiopian Roads Authority, Regional Authorities were entrusted with the responsibility for rural and city administration roads in their regional states.[60] Hence, the speed limit regulation should be enhanced in ways that can maintain the existing and emerging road situation by taking a lesson from prevailing circumstances and it is necessary to review the speed limits based on the global best practices to ensure that the level of safety.

2.2 Alcohol and Other Forms of Destructive Driving

According to Traffic Regulation No. 208/11, any motorist is prohibited to drive a vehicle/motorcycle under the influence of *alcohol, drugs*, *before or after*

[57] Speed Limit Regulation No. 361/69, *supra* note *35,* Art. 4(3).
[58] Ethiopian Road Authority (ERA), Road Sector Development Program (1997-2007), Second Draft, Final Report, Addis Ababa January, (1996), p. 58.
[59] Since both encompasses roads passing through several Awrajas/Regions.
[60] *Id*.

chewing kchat or *consuming narcotic substances,* including under physical difficulties such as exhaustion or poor mental condition.[61] Particularly, Art. 5 (7) (b) of the regulation stipulates the level at which a driver is deemed to be intoxicated based on a globally accepted system of measurement called Blood Alcohol Concentration (BAC) or Breath Alcohol Content (BrAC) limit.[62] A driver is deemed to be intoxicated if the alcohol percentage exceeds 0.8 gram per litter blood or 0.4 milligrams per litter breathe out pure alcohol as detected by an instrument made for this purpose. So, in Ethiopia, the BAC limit for the general population is ≤0.08 g/dl, which is not fairly matching with the current global best practice, i.e. 0.05 g/dl or less.[63]

Further, it has also failed to establish a lower BAC limit for a *young, novice, and commercial drivers*, which is adopted in most countries based on confirmation found from scientific studies.[64] When young persons are allowed to drive with the BAC level applicable for the general population, these types of drivers are usually put at high risk of RTA. For instance, it's indicated that young/novice persons driving with a BAC level of 0.04 g/dl are more than twice exposed to have a crash than adults and experienced drivers.[65] Similarly, commercial drivers are also considered as high-risk group drivers for alcohol-related crashes. As a result, setting BAC limits at 0.02 g/dl or less for both groups is widely acknowledged as an effective way to reduce RTA related to drinking–driving.[66] Therefore, Regulation No. 208/11 has failed to set a more stringent BAC limit for high-risk drivers such as young, novice, and commercial drivers.

Concerning enforcement, Art. 5 (7) (b) of the regulation provides that any driver suspected of intoxication should submit himself/herself for examination when requested by Traffic Controllers. According to the relevant literature, this is called the '*sobriety checkpoint'* alcohol test mechanism, in which police are authorized to systematically stop vehicles in places where there is a high possibility of drinking and give a breath test for any motorists suspected of

[61] Council of Minister's Regulation to Provide Road Transport Traffic Control Regulation No 208/11, Regulation No. 208/2011, *Federal Negarit Gazeta*, 17th Year No. 89, 26th, August, 2011, Art. 5 (7) (a) and sub. (2) & (3).

[62] The amount of alcohol present in the bloodstream, usually measured in grams per deciliter (g/dl).

[63] WHO Global Status Report 2013*, supra* note *31*, p. 16; WHO Global Status Report 2015 *supra* note *31,* p. 24; WHO Save LIVES' *supra* note *9,* p. 31.

[64] Zador PL, Alcohol-Related Relative Risk of Fatal Driver Injuries in Relation to Driver Age and Sex, Journal of Studies on Alcohol, V. 52, No.1, (1991) p. 310; Keall MD, Frith WJ, Patterson TL, The Influence of Alcohol, Age and Number of Passengers on the Night-Time Risk of Driver Fatal Injury in New Zealand, Journal of Accident Analysis and Prevention V. 36, No.4, (2004), p. 53.

[65] *Ibid*.

[66] WHO Global Status Report 2009, *supra* note *31,* p. 21; WHO Save LIVES' *supra* note *9,* p. 32; WHO Global Status Report 2013, *supra* note *31*, p. 16.

alcohol intoxication.[67] Although the stipulation of such a mechanism is favourable, the regulation has yet failed to specify the other mechanism called '*Random Breath Testing'* (RBT). Accordingly, drivers are randomly stopped even if they are not suspected of intoxication to give a breath test to determine whether their alcohol concentration is above the limit. Unlike the sobriety check-point system, any driver can be randomly stopped at check-points and is required to take a breath test including those stopped for any other offense.[68] In the case of a sobriety checkpoint, the common grounds for suspecting an intoxicated driver are irregular driving behaviour, involvement in an accident, or commission of traffic offense. Thus, Traffic Controllers targets only those drivers displaying such obvious signs of impairment.[69] But, such a decision to apprehend solely based on driving signs may not result in effective enforcement of drinking and driving rules and cannot provide a real and sustained level of deterrence. Consequently, RBT is found as an effective mechanism to enforce drinking and driving rules that prohibit, and thereby reduce injuries and fatalities.[70]

Concerning the penalty, the amendment Regulation 395/17 provides for fine and suspension of license according to the point demerit system.[71] However, the regulation failed to include '*vehicle impoundment*' as a penalty option for recidivist and serious offenders, which is commonly recommended by different studies[72]. Likewise, as per Art. 5 (7) (c) of Regulation 208/11, if a driver refuses to take examination he/she shall be presumed as intoxicated and only punished for drunk-driving. However, imposing such solitary punishment is found insufficient, and hence states are usually suggested to adopt further penalties.[73] Moreover, regardless of the severity of infraction above the established BAC limit, all drinking and driving motorists are punishable with the same amount of fine based on the point demerit system.

[67] Dominic Zaal, *supra* note *29*, p. 94.
[68] Magnusson P, Jakobsson L, Hultman S, Alcohol Interlock Systems in Sweden: 10 Years of Systematic Work, American Journal of Preventive Medicine, (2011), V.40 No.8 p. 378.
[69] Ross, H.L, Deterring the Drinking Driver, Legal Policy and Social Control Lexington' MA: Lexington Book (1982), p. 35.
[70] Jonah, B.A. & Wilson, R.J, Improving The Effectiveness of Drinking-Driving Enforcement Through Increased Efficiency, Journal of Accident Analysis and Prevention, V.15 No.6, (1983), p. 463; Peek-Asa C, The Effect of Random Alcohol Screening in Reducing Motor Vehicle Crash Injuries, American Journal of Preventive Medicine, V.16 1S, (1999), p. 57&ff.
[71] Traffic Amendment Regulation No.395/17, *supra* note *26,* Schedule B.
[72] WHO, Drinking and Driving: A Road Safety Manual for Decision-Makers and Practitioners. Geneva, Global Road Safety Partnership, 2007, at 93; Jonah, B.A. & Wilson, *supra* note *70*.
[73] United Nations Economic Commission for Europe (UN ECE), Consolidated Resolution on Road Traffic, Working Party on Road Traffic Safety, (ECE/TRANS/WP.1/123), (2010).

2.3 Seat-Belt and Child Restraint

Seat-belts and child restraints are '*secondary safety devices'* as they do not prevent crashes and are primarily designed to prevent or minimize injury to a vehicle occupant when a crash occurs. Thus, the use of seat-belts and child restraints can reduce the severity of injuries and the number of fatalities by preventing collision with the front seat or steering wheel or by preventing complete ejection from the vehicle or distributing the force of the crash over the strongest part of the body.

2.3.1 Seat-Belt

The most frequent and serious injuries occurring in frontal impacts to car occupants unrestrained by seat-belts are head, chest, and abdomen.[74] Studies indicated that passengers who were not wearing their seat-belts at the time of a collision account for the majority of road traffic injuries and fatalities.[75] Hence, failure to use a seat-belt is a major risk factor for road traffic deaths and injuries among vehicle occupants.

Article 5(3) (a) and (b) of the Traffic Regulation 208/11 prohibits any motor-vehicle drivers other than motorcyclists to drive on any road without a fastening safety belt. If such drivers have a passenger, he/she shall ensure that the passenger has a fastened safety belt. Failure to observe such rule entails fine punishment up to 250 birr if the driver is caught for the first time, and it will substantially increase based on a point demerit system, including suspension of license.[76] Accordingly, although the regulation has merely dictated mandatory use of seat belt by drivers and passengers, it fails to stipulate whether seat-belt use is mandatory for front and rear/back seat passengers instead of using the term 'passengers' in general. From the global best practice, one could see that mandatory seat-belt rules must clearly and specifically cover all car occupants including front and rear-seat passengers.[77]

Legislations in other countries set manufacturing standards on a seat belt, a mandatory requirement for seat belt fitting on imported/local manufactured

[74] Foundation for the Automobile and Society (FIA), Seat-Belts and Child Restraints: A Road Safety Manual for Decision-Makers and Practitioners, (2010), p. 6. Available on www.fiafoundation.org, accessed 11 December 2019.

[75] Mackay M, The Use of Seat-Belts: Some Behavioral Considerations, Proceedings of the Risk-Taking Behavior and Traffic Safety Symposium' from October 19–21, 1997, Washington, DC, National Highway Traffic Safety Administration, p. 14.

[76] Traffic Amendment Regulation No.395/17, *supra* note *26,* Schedule B.

[77] WHO Global Status Report 2013, *supra* note *31,* p. 26; WHO Global Status Report 2015, *supra* note *31,* p. 9; WHO 'Save LIVES' *supra* note *9,* p. 24.

vehicles, retro-fitting/upgrading requirements for older vehicles, or law that prohibits de-specification or damaging on a seat belt. Yet all these do not exist in the Ethiopian Legislations. For instance, in Malaysia, the owners of cars registered after 1995 without seat belt are given 3 years to fit rear seat-belts.[78] In Ethiopia, seat-belts fitting is not even observed as a requirement during the annual technical inspection of vehicles.

2.3.2 Child Restraint

Like a seat belt, it has also been shown that properly restraining children in vehicles reduce injuries and fatalities in the event of a crash. To this end, Art. 40(1) of Regulation 208/11 imposes an obligation on any motor-vehicle driver while transporting minors below the age of seven years to ensure whether they are accompanied by an adult person or hugged by an apparatus made for safety purpose. Accordingly, even if the term child restraint is not directly expressed under the regulation, it is clear that the wording '… *hugged by an apparatus made for safety purpose* …' under Art. 40(1) of the Regulation signifies the use of child restraint. However, the use of restraint while transporting minors below the age of seven is provided '*alternatively'* with that of the hug by an adult person.

Hence, as it stands in the law, the use of child restraint looks optional as a child can be hugged by an adult person without a need to fix restraint on the vehicle to hug a child. Probably, the intention of the legislator in making use of restraint alternatively to that of restraint may perhaps be due to the inaccessibility of child restraint in many low-income countries including Ethiopia. Hence, the use of child restraint for minors below the age of seven is not a mandatory requirement *per se* under the regulation. Unlike seat-belts, child restraints are not automatically installed in vehicles rather must be purchased and fitted by parents'/vehicle owners, hence, such an alternative stipulation for child restraint use would discourage parents to buy and use them. To this end, at least there should be mandatory use of restraint use for private automobiles that can be plug-in and attached to their vehicles.

Furthermore, although infants and children need a child restraint system that accommodates their size and weight, and can adapt to cope with the different stages of their development,[79] the regulation fails to specify such conditions.

[78] Kajang, Malaysian Institute of Road Safety Research (MIROS), Rear Seatbelt Use: Public Awareness and Practice, Research Report. Phase 1: Achievements of First 3-Month Advocacy Program, (2008), available on http://miros.gov.my/web/guest/reports, accessed 11 December 2018.

[79] Foundation for the Automobile and Society (FIA), *supra* note *74*, p. 7.

Moreover, minors below the age of 13 are also prohibited from a seat in the front seat of the vehicle neighbouring with the driver and hence they should only seat in other positions being fastened with a seat belt.[80] However, the Regulation fails to specify the type of restraint and the seating position that should be used in such cases since there could be a possibility that adult belts be used just to secure the vehicle-seat which can't serve the purpose to be achieved by using the suitable restraint that should be used by minors below the age of 13.

2.4 Helmet

Several studies have shown that the use of helmet by motorcycle riders is the most effective way to reduce fatalities and severity of head injuries. For instance, a study reveals that motorcycle helmets can reduce the risk of death by 42% and the risk of head injury by 70%.[81] To reduce death and injury of motorcyclists using a helmet, first, there should be a comprehensive law that covers all motorcycle riders to wear a helmet on every road including specification of the appropriate standard. Because of this, Art. 50 (1) of Regulation 208/11 prohibits any person to ride a motorcycle on any road without wearing a helmet made for such purposes. Similarly, sub 3 of the same provision prohibits a driver of a motorcycle to carry any passenger without putting on a suitable helmet. Although the regulation obliges any motorcyclist riders and passengers to wear a helmet, it fails to comprehensively govern other important issues on the helmet, which in turn can affect its enforcement.

Particularly, it fails to properly govern the *standard of the helmet* required to be used by a motorcyclist. Although Art. 50 (1) of the regulation has prohibited any motorcyclist to ride without putting a suitable helmet made for this purpose, the phrase '*suitable helmet made for this purpose'* is vague/general to properly state the required helmet standard. Since head and neck injuries are the main cause of death and related injuries among motorcycle users, only a quality helmet should be allowed to be worn.[82] Hence, helmets must meet the recognized safety standards with proven effectiveness in reducing head injuries to reduce the impact of road traffic crashes that leads to death. Although there are several internationally recognized quality standards, it is important that a particular government's helmet standard is suitable for the traffic and weather conditions

[80] Art 40(2) of Road Traffic Regulation No.208/11 is amended by Art.11 of the Traffic Amendment Regulation No. 395/17.

[81] Liu B *et al*., Helmets for Preventing Injury in Motorcycle Riders, the Cochrane Database of Systematic Reviews, Issue No.5, (2005), p. 45.

[82] WHO Global Status Report 2013, *supra* note *31,* p. 19, WHO Global Status Report 2015, *supra* note *31,* p. 25; WHO Save LIVES', *supra* note *9,* p. 32.

of the country, and is both affordable and available to users.[83] A comparable good practice is seen from the Kenyan Road Traffic Act that requires motorcycle drivers and their passengers to wear helmets that meet a national standard. Instead of articulating the standard itself, this law refers to a standard set out in a separate legal text by the Kenyan Board of Standards (KEBS), which established in 1974 as the body in charge of testing, approving, stamping, and monitoring a variety of products.[84] After all, while helmet legislative provision in the Road Traffic Act may remain constant over the years, the way it is written allows the standard to be modified and updated without the need to change the legislation.

Further, the regulation does not specify a minimum age at which children can ride a motorcycle as passengers including requirements for child helmets based on age or height. Unless a minimum age is prescribed, the situation becomes more complex for providing protective headwear for young children because the size and shape of the human head evolve rapidly during the first four years of life. In resolving such a problem, some countries in South-East Asia especially Viet Nam and Malaysia where motorcycles are commonly used as a family vehicle, have set a minimum child age to be a passenger including helmet standards.[85] In Ethiopia, too, since there is increasing use of motorcycles as transporting vehicles mainly in those large cities such as Bahir Dar and Hawasa, it is vital to legally state the minimum child age to be a passenger and with helmet standards. Moreover, except for fine and suspension of license, Regulation 395/17 has failed to provide temporary motorcycle impoundment as a penalty option which is highly recommended for recidivists under the global practice.[86]

3. Major Challenges for Effective Enforcement of Traffic Rules

The enforcement of traffic rules by Traffic Controllers is not free of challenges. These challenges are attributable to different factors. For clarity, the researcher has generally classified the factors into legal and practical challenges. The next sections examine the nature and cause of the challenges.

[83] Toroyan T. *et al*, eds, Helmets: A Road Safety Manual for Decision-Makers and Practitioners, World Health Organization, Geneva, (2006), available on www.who.int/roadsafety/projects/manuals/helmet, accessed 22 February 2019.
[84] WHO Global Status Report 2015, *supra* note *31*, p 26.
[85] *Id.*
[86] WHO, 'Strengthening Road Safety Legislation: A Practice and Resource Manual for Countries' (2013), p. 45.

3.1 Legal Challenges

The study reveals that there are legal challenges that jeopardize the effective and efficient enforcement of traffic law. Hence, this section strives to uncover the challenges related to the procedures and gaps in the penalty provisions of the Road Traffic Amendment Regulation No. 395/17.

3.1.1 Failure to Provide *'Warning Letters'* as Penalty Option

The Road Traffic Amendment Regulation 395/17 has employed different penalty measures to be applied against road users caught committing traffic offenses/s. These are *fine and suspension of license* from three months to one year, including training/educational measures based on a point demerit scheme.[87] However, the use of a *warning letter* as a penalty option for any road users committing traffic offenses is not provided at all. Nonetheless, as suggested by several researchers and as this writer also agrees mere reliance on fine and license suspension can affect the effective enforcement of traffic rules in different ways. First, the use of warnings particularly for *less serious traffic offenses* can be effective educational tools that lead to a more sustained modification in road user behaviour than traditional punishment-based strategies which usually focus on deterrence.[88] The idea is that regular use of fines as punishment without an option for minor traffic offenses can cause resentment among road users. Yet, if an earnest explanation of the offense committed is followed with a strong warning letter such could potentially create positive community attitudes towards enforcement activities by educating and promoting more appropriate road user behaviour.[89]

Further, the use of a warning letter for minor offenses as a penalty is a fair option. Sometimes it could be the case that a significant proportion of road users may not be aware that they have committed an offense due to lack of local knowledge or poor attention to the road environment. In such cases, there may be greater merit and fairness of punishment in issuing a warning to these offenders than issuing more severe penalties to those road users who wilfully breach traffic laws.[90] Moreover, the use of warnings in these situations can also increase the efficiency and effectiveness of enforcement activity. It could significantly reduce the time-consuming procedures associated with on-the-spot

[88] Southgate P. & Mirrlees-Black, C, Traffic Policing in Changing Times, London, Home Office Research and Planning Unit, and Research Study; No. 124, (1991), p. 36.
[89] *Ibid.*
[90] Wilden P.H., Phillis, W.G. & Cabon, T, The Use of Warning Letters as A means of Moderating Road User Behavior Journal of Behavior Modification, V.49 No.2, (1989), p.105.

fines by Traffic Controllers, fine processing tasks as well as the subsequent legal proceedings.[91] Thus, the use of a warning letter as a penalty option for minor offenses can save limited time and resource towards enforcing more serious traffic offenses.

3.1.2 Less Deterrent Financial Penalty System

As indicated elsewhere, Regulation No.395/17 has stipulated fixed fines for a different type of traffic offenses based on a *point demerit penalty system*. This system of penalty is used by most countries in the world and is also well recognized to have an impact on reducing the level of illegal road user behaviour and increase the efficiency of offense processing tasks particularly by reducing the workloads.[92] However, it fails to specify the financial amount of penalty and record points for speeding and drink-driving behaviours according to the *degree of severity* above the legal limit. It omits to stipulate temporary *impoundment/confiscation* of vehicle/motorcycle as penalty option for recidivists' and extreme behaviours'.

Furthermore, the way fine is imposed for the offense of passengers over-loading in public transport vehicles under Regulation 395/17 is less/non-deterrent. Under schedule B of the Regulation, over-loading more than 3 passengers in a public transport vehicle with a maximum capacity of 25 people or overloading more than 5 passengers on vehicles which with a capacity of more than 25 people is punishable with 150 birr, if the driver is caught for the first time and the penalty substantially increases based on point demerit system record system.[93] For instance, in a vehicle whose maximum capacity of carriage is 25 people if a driver carries one more passengers exceeding the maximum legal permit, i.e. 3 people, and similarly if another driver carries 10 people exceeding the same legal permit, both of them will be fined with 150 birr if they were caught for the first time. So, the amount of fine is similar for neighbouring any number of passengers above the legal permit. Accordingly, for instance, transport vehicles locally named as '*Dolphin'* with a maximum capacity of 15 people, which serve from Bahir Dar to Gondar or in other nearby cities often border more than 5 passengers over the legal limit as it is very easy to satisfy the amount of fine i.e. 150 birr from two or three of the over-loaded passengers themselves if they are caught by Traffic Controllers. As a result, the amount of fine usually remains

[91] Armour, M., A Review of the Literature on Police Traffic Law Enforcement, Proceedings of the 14th Australian Road Research Board Conference, V.14 No. 1, (1984) p.17.
[92] Dominic Zaal, *supra* note *29*, at 25.
[93] Traffic Amendment Regulation No.395/17, *supra* note *26,* Schedule B.

less deterrent or sometimes non-deterrent at all, to the extent that passengers' overloading seems to be legally permitted activity. In contrast, before the amendment of Regulation 208/11 overloading on public transport vehicles' is punishable with 100 birr for each additional passenger over the legal limit and it was relatively more deterrent.[94] Therefore, the amount of fine should have been equitably improved for having a higher risk of apprehension and deterrence on road users.

3.1.3 Challenges on the Suspension of Drivers' License

Under Regulation 395/17, license suspension is the other form of penalty which can be taken against repeated offenders based on the point demerit record system or directly against motorists who caused death or serious injury against a human person. However, the regulation omits to provide the effect of driving while under suspension. Even if driving a vehicle without a license is made punishable with a fine not exceeding 5,000 birr,[95] no further penalty stipulated for drivers who continue to drive while they are under suspension. The purpose of license suspension is to remove such drivers from the road for a certain fixed time to induce them to drive more responsibly in the future. So, the absence of a countermeasure to be imposed on drivers who continue to drive while they are under suspension can undermine the said value obtained from license suspension. Therefore, the law should have stipulated a countermeasure to be taken against those drivers who continue to drive being under suspension. For instance, a well-known countermeasure against drivers who continue to drive whilst under suspension is to introduce a legal rule allowing police to confiscate the vehicle of the offending driver.[96]

Besides, the Regulation fails to specify the initial time to be taken for the suspending license of a driver who has caused a fatal or injuries accident. According to schedule B of the Regulation, if a driver has caused the serious bodily injury of a fatal accident on a human person by committing any traffic offense, his/her license will be suspended for 6 months in case of serious injury or one year in case of death in addition to 22 and 28 recording points respectively.[97] However, since criminal prosecution is usually inevitable in these cases, police have to wait until the court pronounces guiltiness of the driver to suspend his/her license. If not, injustice will be made to the driver if the police

[94] Road Traffic Regulation No.208/11, *supra* note *61,* Schedule B.
[95] Traffic Amendment Regulation No.395/17, *supra* note *26,* Schedule B.
[96] Dominic Zaal, *supra* note *29*, p. 12.
[97] Traffic Amendment Regulation No.395/17, *supra* note *26,* Schedule B.

have instantly suspended every motorist who has caused serious injury or fatal accident as it deems necessary while the court decides the innocence of the driver. As a result, Traffic Controllers now are taking the time after conviction to suspend driver's license.[98] Hence, the Regulation should have indicated the initial time to be taken while suspending the license of a driver in the above situations.

3.2 Practical Challenges

Even in cases where the rules are clear, their practical implementation may not be effectively realized because of various obstacles. This section analyses those major challenges on the practical enforcement of the traffic laws.

3.2.1 Failure to Enforce the Point Demerit Penalty System

Point demerit scheme is introduced by Regulation 208/11 as means of linking road user behaviour with the imposition of severe penalty. Yet, it was later repealed by Schedule B of the new amendment Regulation 395/17. According to the system, points are allocated to various categories of traffic offenses and when a driver accumulates the highest point in the specified time, his/her driving license is suspended.[99] It was practically applied in 2015/16 (2007/8 EC) in Addis Ababa, Amhara, Oromia, and Tigray Regions using a mobile SMS platform as a means of notification. However, the system was functional only for a year (2017/2009 E.C) because of two major reasons. The first is the need for the uniform application of the system throughout the country.[100] The system was used only in the above three regions and Addis Ababa City. Hence, to uniformly apply throughout the country, it was suspended until those regions can commence its use. The second is due to the need for revising the existing SMS platform in line with new category offenses and fines under the amendment Regulation 395/17.[101] Because of these reasons, Traffic Controller is using and imposing only the fixed amount of fines set for a different type of offenses against any offender though he/she has consistently been involved in violating the rules. Consequently, except those drivers who have caused death or serious injury on individuals, it is not possible to impose penalty measure which results in the suspension and/or cancellation of drivers' license while

[98] Interview with Commander Meseret Debaleke, Chief Officer of Bahir Dar City Traffic Police Administration, 5 June, 2019; Interview with Commander Tezera Fisseha, Chief Officer of Gondar City Traffic Police Administration, 20 June 2019.
[99] Traffic Amendment Regulation No.395/17, *supra* note *26,* Schedule B.
[100] Interview with Commander Meseret Debaleke, *supra* note *98*; Interview with Commander Tezera Fisseha, *supra* note *98.*
[101] *Id.*

committing other traffic offense, for there are points currently recorded for each type of offenses committed by a wrongful driver and finally leads the imposition of such measures.[102]

The purpose of introducing a point demerit penalty system is to deter those road users who consistently violate traffic laws upon notifying each fault committed.[103] Likewise, officials indicated previously that, while the system has been in work, many drivers' license was suspended as a result of accumulating a maximum number of counts stipulated under the regulation.[104] The SMS platform has also contributed a lot to Traffic Controllers by enabling them to detect and send demerit counts to those drivers who reject to stop after committing an offense through their mobile numbers.[105] Unarguably, the above fact witnesses the failure of the government to provide in time the necessary administrative schemes essential to enforce the penalty system stipulated under the regulation.

3.2.2 Existence of Limited Policing Resources

Several studies suggest that to have a meaningful and immediate deterrence against the would-be traffic offender, Traffic Controllers should regularly and seriously engage in detecting, apprehending, and punishing every road user in an organized way.[106] However, due to limitations with policing resources, they might face a difficulty to maintain enforcement activity. There are several cases, in which policing resources could be limited, but the researcher identifies the following as major obstacles to effective enforcement of traffic laws in general and key-risk factors in the research settings.

The first is the *understaffing* of the Traffic Controller. For instance, Officials from Bahir Dar and Gondar indicate that because of *understaffing*, it is very difficult to conduct *regular and serious* policing activities not simply across every street in the cities, but even in those high traffic movements and accident

[102] As stipulated under Schedule A of the Regulation, a driver who has committed these types of offences is directly punishable with suspension of his/her driving license for a year. Whereas, as stipulated under Schedule B of the Regulation a driver who has committed other type of crimes for second/more second times and if its penalty recording point reaches to 28/more than that, he/she is punishable with suspension of his/her driving license for a year.

[103] Traffic Amendment Regulation No.395/17, *supra* note *26,* Schedule B.

[104] Interview with Commander Meseret Debaleke, *supra* note *98*; Interview with Commander Tezera Fisseha, *supra* note *98*.

[105] *Id.*

[106] Rothengatter, T, Automatic Policing and Information Systems in Enforcement and Rewardin Strategies and Effects, proceedings of the International Road Safety Symposium in Copenhagen, Denmark, September 19-21, 1990, at 64; Dominic Zaal, *supra* note *31,* p. 12.

black-spot streams.[107] Commonly, only two Traffic Police Controllers are assigned to work at a given traffic stream by shift during the day time only.[108] Thus, usually, a single Controller is expected to carry out the enforcement process i.e., detection, apprehensions, and punishment, which is very difficult to effectively monitor the traffic situation. As a result, Traffic Police Controllers are forced to give primacy for the selected type of offenses that are commonly observed in public/commercial transport vehicles such as detection of public vehicles, exit permit, and passengers overloading or they remain busy while investigating traffic incidences.[109] To mitigate such a problem of understaffing, Regulation 208/11 empowers the office of Traffic Controllers to delegate voluntary associations such as Traffic Students and Transport Associations, which can help traffic monitoring activity.[110] Although voluntary groups usually help in monitoring pedestrian road use, they work in streams like schools and market places and are not continuous.[111]

The second major resource limitation is related to *patrolling vehicles/motorcycles*. Almost all Traffic Controllers are involved in patrolling work without vehicles/motorcycles.[112] Consequently, the stationary enforcement mechanism is usually deployed by Traffic Controllers to conduct policing activities just retaining on new or previously known streets/intersections. Hence, the above facts indicate that the *Mobile Traffic Enforcement System* is not employed most of the times even though it is well recommended as an effective means to sustain the deterrent effect of enforcement.[113]

Moreover, the use of automated enforcement devices increasingly become a popular mechanism to reduce traffic policing resources while at the same time providing an efficient and effective means of detecting and deterring traffic offenders, especially in areas of the speed limit, red light traffic signal, high occupancy lane, and heavy vehicle enforcement.[114] This system normally

[107] Interview with Commander Meseret Debaleke, *supra* note *98*; Interview with Commander Tezera Fisseha, *supra* note *98*; Interview with Berhane Abebe, Officer of Transport Controllers in Bahir Dar City Administration, 4 June, 2019; Interview with Belayineh Chane, Officer of Transport Controllers in Gondar City, 23, June 2019.

[108] Interview with Commander Meseret Debaleke, *supra* note *89*; Interview with Commander Tezera Fisseha, *supra* note *89*; Interview with Berhane Abebe, *supra* note *107*; Interview with Belayineh Chane, *supra* note *107*.

[109] *Id.*

[110] Road Transport Traffic Control Regulation No 208/11, *supra* note *61* Art. 83.

[111] Interview with Commander Meseret Debaleke, *supra* note *98*; Interview with Commander Tezera Fisseha, *supra* note *98*.

[112] *Id.*

[113] Armour, M., A Review of the Literature on Police Traffic Law Enforcement, Proceedings of the 14th Australian Road Research Board Conference, 14(1), (1984), p. 17-24.

[114] Dominic Zaal, *supra* note *29,* p. 20.

consists of detection equipment, processing unit, camera, and video recording systems and able to determine whether or not an offense is being committed using the recorded image.[115] Therefore, the use of such devices can have an impact on driver behaviour and at the same time reduce traffic police resources. However, such types of enforcement devices are non-existent in Ethiopia.

3.2.3 Traffic Controllers General Concern and Compassion

Traffic Controllers bears a professional duty to undertake its policing activities against any wrongful road users with maximum care and concern. However, all Traffic Controllers are not equally concerned to control illegal behaviours to the extent they can do so. For instance, about speeding, use of seat belt/helmet, or other offenses, while some Traffic Controllers are seriously concerned in detecting and punishing each wrongdoer, others are hesitant to do so.[116] Consequently, this would lead other Traffic Controllers to remain reluctant to detect and punish potential wrongful road users. Hence, Traffic Controllers are not equally committed to detecting, apprehending, and punishing offenders even in the situations that they were able to do so.[117]

3.2.4 Absence of Supporting Activities on Traffic Law Enforcement

I. Publicity Works on Road Safety

The use of road safety publicity campaigns with traffic enforcement is well studied as being effective means for long-lasting change of road user's behaviour.[118] In general, road safety publicity activities denote various works that were designed to inform, advice, encourage, and persuade a target audience to undertake a particular behaviour. It mainly includes publicity works on specific policing activity, and educational/awareness creation campaigns by Traffic Controllers, volunteers, mass media, or other governmental and non-governmental agencies.[119]

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[115] *Id.*

[116] Interview with Inspector Nafkot Degu, Traffic Police Controllers in Bahir City, 5 June 2019; Interview with Wana Sajin Nigusu Aragawu, Traffic Police Controllers in Gondar City, 5 June 2018.

[117] Interview with Commander Meseret Debaleke, *supra* note *98*; Interview with Commander Tezera Fisseha, *supra* note *98*.

[118] Gundy, C.M., The Effectiveness of a Combination of Police Enforcement and Public Information For Improving Seat Belt Use, in Rothengatter & De Bruin (eds.), (1988), p. 26.

[119] Organization for Economic Co-operation and Development (OECD), Road Transport Research: Marketing of Traffic Safety, report prepared by the Scientific Expert Group, Paris, (1993), p. 112; Elliott, B., Road Safety Mass Media Campaigns: A Meta-Analysis, Report CR 118, Federal Office of Road Safety, Canberra, (1993).

Accordingly, publicity works on enforcement activities by Traffic Controllers against a particular behaviour like speeding, drinking and driving, seat belt and helmet use by motorists can increase *the perceived risk of apprehension* of road users.[120] Subsequently, it would raise their deterrence by increasing their expectation about new/additional enforcement activity, provided that such activities are observed. However, this type of policing activity is viewed very rarely on traffic rules including speeding, drink-driving, seat belt, child restraint, and helmet in both mainstreaming and local media.

There are ample awareness creation educational programs on road safety issues as conducted by Traffic Controllers in some cities using special public gatherings.[121] The type of medium used to convey publicity is also another determinant factor ~~by~~ for its effectiveness. For instance, several studies show that Television, Radio, or Press advertising ~~is~~ are the most effective medium for producing change relative to other mediums for it is possible to reach a large audience using these avenues.[122] However, awareness creation programs are undertaken by Traffic Controllers usually delivered by informal roadside announcements.[123] In respect of publicity activities on speed, public posting of speed information has been found as an important measure towards reducing the speeding behaviour of a driver.[124] However, legally enforceable speed limits or related information is observed only in the gate areas of some cities in Ethiopia. Moreover, although publicity campaigns organized by volunteer groups are also important ways to change the knowledge and attitude of road users and the community towards speeding, drink-driving, seat belt, and helmet use,[125] such type of programs are unknown in Ethiopia.

[120] Dominic Zaal, *supra* note *29,* p. 23.

[121] For instance there is the so called 'Traffic Safety Weeks' held by Traffic Police Controllers across various Cities in Ethiopia, with the purpose of creating community awareness in public gatherings such as markets, schools, religious institutions or in sport festivals regarding accident severity and pedestrians' road use. Yet, these awareness raising programs are targeted on safety rules to be observed by pedestrians and hence there is no particular program targeted towards other motorists and illegal traffic behaviors such as speeding, drink driving, mobile phone using, *kchat* impairment, seat belt and helmet non-use.

[122] Liedekerken, P.C. & van der Colk, H., Highway Driving Speed Reduction and Public Information Campaigns in the Netherlands, Swedish Road and Traffic Research Institute, Sweden, (1990).

[123] Occasionally, even if informative/educational road safety programs are broadcasted using Amhara TV and Radio (FM 96.1), they are not concerned on particular road safety issue/behavior and are not even continuously portrayed. Interview with Berhane Abebe, *supra* note *107*.

[124] Dominic Zaal, *supra* note *29,* p. 73.

[125] WHO Global Status Report 2013, *supra* note *31*, p. 25; WHO Global Status Report 2015 *supra* note *31* p. 16; WHO 'Save LIVES' *supra* note *2,* p. 31; Foundation for the Automobile and Society (FIA) *supra* note *74*, p. 55 & ff.

II. Environmental/Road Engineering Measures on Speeding

Maximum enforcement of speed limits stipulated under the law along with other preventative strategies can change the behaviour of speeding motorists against the specified limit. However, the task becomes difficult as motorists usually do not perceive or fail to remember speeding as a particularly deviant form of driving behaviour due to several reasons.[126] This has led researchers to look for other 'agents' of speeding, namely the *vehicle* and *roadside environment*.[127] In other words, by fitting a device that limits the maximum speeds of vehicles and using physical speed reduction or perceptual road treatments, it is possible to reduce the speeding behaviour of motorists.[128] In respect of vehicle device that limits driving over the allowed maximum speed, Directive No. 1/2006 has prescribed for the application of car-mounted speed limiting devices, especially in commercial and public transport vehicles. However, its practical application is not yet started in Ethiopia.

One of the most common road engineering treatments to reduce speeding is the use of various *'traffic calming'* measures such as roundabouts, raised pavements, speed humps, staggering' and narrowing.[129] Unlike the case of roundabouts and intersections, other *'traffic calming'* measures such as high pavements, speed humps, staggerings, narrowings, and painted roadway surfaces are rarely available across the streets in Ethiopia. And, several intersections in most streets have no red light traffic system or built roundabout, although they were known for frequent accident crashes.[130]

Adding, it is possible to reduce the speeding behaviour of drivers using *'perceptual speed control measures'* which requires a low cost of the application without any physical engineering measures on the road surface.[131] Commonly, such type of road treatment is used in Ethiopia through diagonal lines marked on

[126] R Fuller, Modification of Individual Road User Behaviour in Enforcement and Rewarding Strategies and Effects, proceedings of the International Road Safety Symposium in Copenhagen, Denmark, from September 19-21, (1990), p. 40.

[127] *Id.*

[128] P Cairney and M Townsend, Alternatives to Enforcement for Speed Management, Australian Road Research Board ARRB Vermont South, Vic, (1991), p. 6.

[129] Dominic Zaal, *supra* note *29,* p. 79.

[130] In Bahir Dar, for instance those wide intersections exist in front Yetebeberut gas station at Keble-14 and around Dippo at Kebele 13 has no built roundabout or red-light traffic system. Interview with Sajin Asefa Andarge, Officer Traffic Police Controllers at Zetengna (9th) Police station in Bahir City Administration, 5 June 2019; Interview with Wana Sajin Nigusu Aragawu, *supra* note *116*. In Gondar, even if some roads has downhill surface structure necessitating placement of speed humps as a solution against speeding motorists, most are without this traffic calming measure.

[131] Fildes, *et al*., Speed Perception 2: Driver's Judgments of Safety and Travel Speed On Rural Curved Roads and at Night, Federal Office of Road Safety, Department of Transport and Communications, Australia Canberra Report CR 60, (1989), p. 16.

the roadway or commonly called *'Pedestrian Crossing/Zebra'* usually nearby roundabouts or intersections. Accordingly, drivers are required to reduce their speed and stop while approaching in such places since they were set for pedestrian's passage.[132] Nonetheless, *Zebra-Crossing'* are visible in very few sections of the streets in Ethiopia, and even most of them are not observed upon losing their marks.[133] Moreover, the use of centre-line and edge-line road treatments including transverse striping on the edges and shoulder region of the road is also identified as a possible means to reduce speeding behaviours'.[134] However, except for a few streets, such types of treatments are not visible on most roads across the country.

3.2.5 Lack of Proper Knowledge and Training for Traffic Controllers

Every Traffic Controller should be educated and skilled with strategies of traffic law enforcement tasks and tactics to achieve maximum success. In particular, they have to possess basic knowledge of the law, mechanisms of targeting traffic areas with a high rate of non-compliance and enforce traffic rules, and provide effective advice and education to motorists. Nevertheless, except for the general policing training program provided by Police College, most Traffic Police Controllers in our country do not pass through a specific training program designed for traffic law enforcement.[135] As a result, since Traffic Police Controllers have no basic knowledge about traffic law enforcement, they were conducting such activities based on common practices, including the various scientific strategies of targeted enforcement operations.[136] Therefore, it is logical to say that, as things stand now, Traffic Controllers are not equipped with proper knowledge and skill that enables them to deploy and undertake those strategies aimed at increasing the overall effectiveness and efficiency of policing operations. However, if Traffic Controllers are provided with the required

[132] *Id.*

[133] For instance, Traffic Police Officials in Bair Dar and Gondar point that, the City Administration, which is responsible to mark new Zebra-Crossings or maintain existing ones has failed to carry out its function though they have repeatedly asked. And, even those streets built/marked with pedestrian walk way are narrow, or if it's in market place often used by *street vendors for selling various products* or used for *retaining construction materials such as soil, ashewa, and boulder* in some other roads.

[134] Fildes, *et al. supra* note *131*, p. 16.

[135] Interview with Commander Meseret Debaleke, *supra* note *98*; Interview with Commander Tezera Fisseha, *supra* note *98*; Interview with Berhane Abebe, *supra* note *107*; Interview with Belayineh Chane, *supra* note *107*. Occasionally, even if there are training programs given by the Federal Transport Authority like on the new amendment traffic regulation 395/17 very few Traffic Controllers were involved.

[136] Interview with Sajin Mebratu Setotawu, Traffic Police Controllers in Bahir Dar City, 5 June 2019; Interview with Wana Sajin Nigusu Aragawu, *supra* note *116*.

training programs on traffic law and its enforcement, it could help them to attain and maintain their commitment towards effective enforcement of traffic rules.

Conclusion

No doubt that enacting a comprehensive traffic law on key risk factors to road traffic deaths and injuries, i.e. speeding, drink-driving and other forms of destructive driving, use of helmet, seat belt and child restraints, would prove itself as the most effective way to reduce road traffic deaths and injuries provided that it is accompanied by strong enforcement schemes. In Ethiopia, there are relevant laws enacted to govern these risk factors, i.e. the 1969 Speed Limit Regulation No. 361/69 and Road Traffic Regulation No. 208/11, including its Amendment Regulation No. 395/17. And, such laws have tried to provide some important provisions regarding the key risk factors. Nevertheless, a critical inquiry made by this article found out that, still, the regulations are not comprehensive enough or not compatible, at least in some respects, with the global best practice in governing several aspects surrounding each risk factor. Furthermore, this article has uncovered several legal and practical challenges hindering effective enforcement of the traffic rules. In particular, the non-application of point demerit penalty system stipulated under the law, limited resource, understaffing and lack of patrolling vehicles/motorcycles, Traffic Controllers' lack of commitment for enforcing traffic laws, absence of continual training Traffic Controllers are, *inter alia*, the major obstacles to effective enforcement of traffic regulation. Thus, Ethiopia should take the issue of road traffic deaths and injuries seriously; it is imperative to review the traffic laws in line with the global best practice and to strengthen enforcement activities.